CLAIMS

1. A method for simultaneously detecting deletions at a plurality of DNA sequences, comprising the steps of:

treating said DNA to form single-stranded complementary strands;

adding a plurality of paired oligonucleotide primers, each pair specific for a different sequence, one primer of each pair substantially complementary to a part of the sequence in the sense-strand and the other primer of each pair substantially complementary to a different part of the same sequence in the complementary anti-sense strand;

annealing the plurality of primers to their complementary sequences;

simultaneously extending said plurality of annealed primers from each primer's 3' terminus to synthesize an extension product complementary to the strands annealed to each primer, said extension products, after separation from their complement, serving as templates for the synthesis of an extension product from the other primer of each pair;

separating said extension products from said templates to produce single-stranded molecules;

amplifying said single stranded molecules by repeating, at least once, said annealing, extending and separating steps; and

identifying said amplified extension products from each different sequence.

2. The method of Claim 1 for detecting deletions at a plurality of genomic DNA sequences, wherein said sequences are selected from the group of sequences on the X and Y chromosomes.

3. The method of Claim 2 for the detection of X-linked disease, wherein said genomic DNA sequences

contain a deletion that causes a genetic disease.

4. The method of Claim 3 for the detection of said X-linked genetic diseases selected from the group consisting of ornithine transcarbamylase deficiency, hypoxanthine phosphoribosyltransferfase deficiency, steroid sulfatase deficiency and X-linked muscular dystrophy.

5. The method of Claim 4 for the detection of X-linked muscular dystrophy, wherein said plurality of paired primers are complementary to different sequences within the gene coding for the dystrophin protein.

6. The method of Claim 5, wherein the plurality of paired primers is selected from the group consisting of:

(1) 5'-GACTTTCGATGTTGAGATTACTTTCCC-3'
(2) 5'-AAGCTTGAGATGCTCTCACCTTTTCC-3',

(1) 5'-GTCCTTTACACACTTTACCTGTTGAG-3'
(2) 5'-GGCCTCATTCTCATGTTCTAATTAG-3',

(1) 5'-AAACATGGAACATCCTTGTGGGGAC-3'
(2) 5'-CATTCCTATTAGATCTGTCGCCCTAC-3',

(1) 5'-GATAGTGGGCTTTACTTACATCCTTC-3'
(2) 5'-GAAAGCACGCAACATAAGATACACCT-3',

(1) 5'-CTTGATCCATATGCTTTTACCTGCA-3'
(2) 5'-TCCATCACCCTTCAGAACCTGATCT-3',

(1) 5'-GAATACATTGGTTAAATCCCAACATG-3'
(2) 5'-CCTGAATAAAGTCTTCCTTACCACAC-3', and

(1) 5'-TTCTACCACATCCCATTTTCTTCCA-3'
(2) 5'-GATGGCAAAAGTGTTGAGAAAAAGTC-3'.

7.   The method of Claim 3, wherein said genomic DNA is from fetal tissue.

8.   The method of Claim 1 for detecting deletions at a plurality of genomic DNA sequences, wherein the plurality of paired primers is selected from the group consisting of:

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(1)   5'-GACTTTCGATGTTGAGATTACTTTCCC-3'
(2)   5'-AAGCTTGAGATGCTCTCACCTTTTCC-3',

(1)   5'-GTCCTTTACACACTTTACCTGTTGAG-3'
(2)   5'-GGCCTCATTCTCATGTTCTAATTAG-3',

(1)   5'-AAACATGGAACATCCTTGTGGGGAC-3'
(2)   5'-CATTCCTATTAGATCTGTCGCCCTAC-3',

(1)   5'-GATAGTGGGCTTTACTTACATCCTTC-3'
(2)   5'-GAAAGCACGCAACATAAGATACACCT-3',

(1)   5'-CTTGATCCATATGCTTTTACCTGCA-3'
(2)   5'-TCCATCACCCTTCAGAACCTGATCT-3',

(1)   5'-GAATACATTGGTTAAATCCCAACATG-3'
(2)   5'-CCTGAATAAAGTCTTCCTTACCACAC-3',

(1)   5'-TTCTACCACATCCCATTTTCTTCCA-3'
(2)   5'-GATGGCAAAAGTGTTGAGAAAAAGTC-3',

(1)   5'-TGGTCTCCTTAAACCTGTCTT-3'
(2)   5'-ACACAACTGTGTTCACTAG-3',

(1)   5'-ACGTGGAGTGACGATGCTCTTCCC-3'
(2)   5'-GTGGGATTCACCACTTTTCCC-3'   and

(1)   5'-GAAGTCAAGGACACCGAGGAA-3'
(2)   5'-AGCCCTCTGGCCAGTCCTAGTG-3'.
```

9.   A DNA sequence of the formula:

```
5'        10            20            30            40            50
TAAATTGACT  TTCGATGTTG  AGATTACTTT  CCCTTGCTAT  TTCAGTGAAC
          60            70            80            90           100
CAAACTTAAG  TCAGATAAAA  CAATTTTATT  TGGCTTCAAT  ATGGTGCTAT
         110           120           130           140           150
TTTGATCTGA  AGGTCAATCT  ACCAACAAGC  AAGAACAGTT  TCTCATTATT
         160           170           180           190           200
TTCCTTTGCC  ACTCCAAGCA  GTCTTTACTG  AAGTCTTTCG  AGCAATGTCT
         210           220           230           240           250
GACCTCTGTT  TCAATACTTC  TCACAGATTT  CACAGGCTGT  CACCACCACT
         260           270           280           290           300
CAGCCATCAC  TAACACAGAC  AACTGTAATG  GAAACAGTAA  CTACGGTGAC
```

```
1
         310          320          330          340          350
    CACAAGGGAA   CAGATCCTGG   TAAAGCATGC   TCAAGAGGAA   CTTCCACCAC
         360          370          380          390          400
    CACCTCCCCA   AAAGAAGAGG   CAGATTACTG   TGGATTCTGA   AATTAGGAAA
         410          420          430          440          450
5   AGGTGAGAGC   ATCTCAAGCT   TTTATCTGCA   AATGAAGTGG   AGAAAACTCA
         460          470          480          490          500
    TTTACAGCAG   TTTTGTTGGT   GGTGTTTTCA   CTTCAGCAAT   ATTTCCAGAA
         510          520          530          540          550
    TCCTCGGGTA   CCTGTAATGT   CAGTTAATGT   AGTGAGAAAA   ATTATGAAGT
         560          570          580          590          600
    ACATTTTAAA   ACTTTCACAA   GAAATCACTA   TCGCAACAGA   AACTAAATGC
         610          620          630          640          650
10  TTAATGGAAA   TGGTGTTTTC   TGGGGTGAAA   GAAGAAACTA   TAGAAACTAT
         660          670          680          690          700
    AGGTGATAAA   CTACTGTGGT   AGCATTTTAA   TCCTAAAAGT   TTCTTTCTTT
         710          720          730          740          750
    CTTTTTTTTT   TTTCTTCCTT   ATAAAGGGCC   TGCTTGTTGA   GTCCCTAGTT
         760          770          780          790          800
    TTGCATTAAA   TGTCTTTTTT   TTCCAGTAAC   GGAAAGTGCA   TTTTCATGAA
         810          820          830          840          850
15  GAAGTACACC   TATAATAGAT   GGGATCCATC   CTGGTAGTTT   ACGAGAACAT
         860          870          880          890          900
    GATGTCTCAG   TCTGCGCATC   CTAAATCAGG   AGTAATTACA   GAACACATTT
         910          920          930          940          950
    CCTGTTCTTT   GATATTTATA   AAGTCTTATC   TTGAAGGTGT   TAGAATTTTT
         960          970          980          990         1000
    AACTGATCTT   TTTGTGACTA   TTCAGAATTA   TGCATTTTAG   ATAAGATTAG
        1010         1020         1030         1040
20  GTATTATGTA   AATCAGTGGA   TATATTAAAT   GATGGCAATA   A-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.

　　　10.　A DNA sequence of the formula:

```
5'       10           20           30           40           50
    TGTCCAAAAT   AGTTGACTTT   CTTTCTTTAA   TCAATAAATA   TATTACTTTA
         60           70           80           90          100
30  AAGGGAAAAA   TTGCAACCTT   CCATTTAAAA   TCAGCTTTAT   ATTGAGTATT
        110          120          130          140          150
    TTTTTAAAAT   GTTGTGTGTA   CATGCTAGGT   GTGTATATTA   ATTTTTATTT
        160          170          180          190          200
    GTTACTTGAA   ACTAAACTCT   GCAAATGCAG   GAAACTATCA   GAGTGATATC
        210          220          230          240          250
    TTTGTCAGTA   TAACCAAAAA   ATATACGCTA   TATCTCTATA   ATCTGTTTTA
        260          270          280          290          300
35  CATAATCCAT   CTATTTTTCT   TGATCCATAT   GCTTTTACCT   GCAGGCGATT
```

	310	320	330	340	350
1	TGACAGATCT	GTTGAGAAAT	GGCGGCGTTT	TCATTATGAT	ATAAAGATAT
	360	370	380	390	400
	TTAATCAGTG	GCTAACAGAA	GCTGAACAGT	TTCTCAGAAA	GACACAAATT
	410	420	430	440	450
5	CCTGAGAATT	GGGAACATGC	TAAATACAAA	TGGTATCTTA	AGGTAAGTCT
	460	470	480	490	500
	TTGATTTGTT	TTTTCGAAAT	TGTATTTATC	TTCAGCACAT	CTGGACTCTT
	510	520	530	540	550
	TAACTTCTTA	AAGATCAGGT	TCTGAAGGGT	GATGGAAATT	ACTTTTGACT
	560	570	580		
	GTTGTTGTCA	TCATTATATT	ACTAGAAAGA	AAA-3'	

10 and fragments and derivatives thereof, said fragments and derivatives complementary to the sense and anti-sense strands of the gene coding for dystrophin, said fragments and derivatives capable of annealing to said strands of the dystrophin gene and amplifying dystrophin sequences.

15   11.   A DNA sequence of the formula:

5'	10	20	30	40	50
	ACCCAAATAC	TTTGTTCATG	TTTAAATTTT	ACAACATTTC	ATAGACTATT
	60	70	80	90	100
	AAACATGGAA	CATCCTTGTG	GGGACAAGAA	ATCGAATTTG	CTCTTGAAAA
	110	120	130	140	150
	GGTTTCCAAC	TAATTGATTT	GTAGGACATT	ATAACATCCT	CTAGCTGACA
20	160	170	180	190	200
	AGCTTACAAA	AATAAAAACT	GGAGCTAACC	GAGAGGGTGC	TTTTTTCCCT
	210	220	230	240	250
	GACACATAAA	AGGTGTCTTT	CTGTCTTGTA	TCCTTTGGAT	ATGGGCATGT
	260	270	280	290	300
	CAGTTTCATA	GGGAAATTTT	CACATGGAGC	TTTTGTATTT	CTTTCTTTGC
	310	320	330	340	350
25	CAGTACAACT	GCATGTGGTA	GCACACTGTT	TAATCTTTTC	TCAAATAAAA
	360	370	380	390	400
	AGACATGGGG	CTTCATTTTT	GTTTTGCCTT	TTTGGTATCT	TACAGGAACT
	410	420	430	440	450
	CCAGGATGGC	ATTGGGCAGC	GGCAAACTGT	TGTCAGAACA	TTGAATGCAA
	460	470	480	490	500
	CTGGGGAAGA	AATAATTCAG	CAATCCTCAA	AAACAGATGC	CAGTATTCTA
	510	520	530	540	550
30	CAGGAAAAAT	TGGGAAGCCT	GAATCTGCGG	TGGCAGGAGG	TCTGCAAACA
	560	570	580	590	600
	GCTGTCAGAC	AGAAAAAGA	GGTAGGGCGA	CAGATCTAAT	AGGAATGAAA
	610	620			
	ACATTTTAGC	AGACTTTTTA	AGCTT-3'		

and fragments and derivatives thereof, said fragments and

35 derivatives complementary to the sense and anti-sense

strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.

12. A DNA sequence of the formula:

```
5'        10              20              30              40              50
TTTTGTAGAC  GGTTAATGAA  TAATTTTGAA  TACATTGGTT  AAATCCCAAC
          60              70              80              90             100
ATGTAATATA  TGTAAATAAT  CAATATTATG  CTGCTAAAAT  AACACAAATC
         110             120             130             140             150
AGTAAGATTC  TGTAATATTT  CATGATAAAT  AACTTTTGAA  AATATATTTT
         160             170             180             190             200
TAAACATTTT  GCTTATGCCT  TGAGAATTAT  TTACCTTTTT  AAAATGTATT
         210             220             230             240             250
TTCCTTTCAG  GTTTCCAGAG  CTTTACCTGA  GAAACAAGGA  GAAATTGAAG
         260             270             280             290             300
CTCAAATAAA  AGACCTTGGG  CAGCTTGAAA  AAAAGCTTGA  AGACCTTGAA
         310             320             330             340             350
GAGCAGTTAA  ATCATCTGCT  GCTGTGGTTA  TCTCCTATTA  GGAATCAGTT
         360             370             380             390             400
GGAAATTTAT  AACCAACCAA  ACCAAGAAGG  ACCATTTGAC  GTTAAGGTAG
         410             420             430             440             450
GGGAACTTTT  TGCTTTAATA  TTTTTGTCTT  TTTTAAGAAA  AATGGCAATA
         460             470             480             490             500
TCACTGAATT  TTCTCATTTG  GTATCATTAT  TAAAGACAAA  ATATTACTTG
         510             520             530             540             550
TTAAAGTGTG  GTAAGGAAGA  CTTTATTCAG  GATAACCACA  ATAGGCACAG
         560             570             580             590             600
GGACCACTGC  AATGGAGTAT  TACAGGAGGT  TGGATAGAGA  GAGATTGGGC
         610             620             630             640             650
TCAACTCTAA  ATACAGCACA  GTGGAAGTAG  GAATTTATAG  C-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.

13. A DNA sequence of the formula:

```
5'        10              20              30              40              50
TGAGAAATAA  TAGTTCCGGG  GTGACTGATA  GTGGGCTTTA  CTTACATCCT
          60              70              80              90             100
TCTCAATGTC  CAATAGATGC  CCCCAAATGC  GAACATTCCA  TATATTATAA
         110             120             130             140             150
ATTCTATTGT  TTTACATTGT  GATGTTCAGT  AATAAGTTGC  TTTCAAAGAG
         160             170             180             190             200
GTCATAATAG  GCTTCTTTCA  AATTTTCAGT  TTACATAGAG  TTTTAATGGA
         210             220             230             240             250
TCTCCAGAAT  CAGAAACTGA  AAGAGTTGAA  TGACTGGCTA  ACAAAACAGA
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```
           260         270         280         290         300
AGAAAGAACA  AGGAAAATGG  AGGAAGAGCC  TCTTGGACCT  GATCTTGAAG
           310         320         330         340         350
ACCTAAAACG  CCAAGTACAA  CAACATAAGG  TAGGTGTATC  TTATGTTGCG
           360         370         380         390         400
TGCTTTCTAC  TAGAAAGCAA  ACTCTGTGTA  TAGTACCTAT  ACACAGTAAC
           410         420         430         440         450
ACAGATGACA  TGGTTGATGG  GAGAGAATTA  AAACTTAAAG  TCAGCCATAT
           460         470         480         490         500
TTTAAAAATT  ATTTTTACCT  AATTGTTTTT  GCAATCTTTG  TTGCCAATGG
           510         520         530         540         550
CCTTGAATAA  GTCCCCTCCA  AAATTCAGGT  GATTGTATTA  GGAGATGGAA
           560         570         580         590         600
TATTTAAGGG  TGAATAATCC  ATCAGGGCTC  CTCCCTTAAG  AATAGGATCA
           610         620         630         640         650
AGTCCCATAT  AAAAGAGGCT  TCACACAGTG  TTCTCCTATC  TCTTGACCCT
           660         670         680         690         700
CCACCATGCA  CCACCATGTG  AAAACTCTGT  GAAAAGGCCC  TCACCAGATG
           710         720         730         740         750
CTAACATCTT  GATCTTGGAT  TTCCCAAACT  CGAGAACTGT  GAAAAAATAA
           760         770         780         790         800
AGGTACATTC  TTCCTAAATT  ACCTCATTCT  CATTTAAACA  CACAAAGTGC
           810
ACACATAGCT  G-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.

14.   A DNA sequence of the formula:

```
5'         10          20          30          40          50
TTACTGGTGG  AAGAGTTGCC  CCTGCGCCAG  GGAATTCTCA  AACAATTAAA
           60          70          80          90          100
TGAAACTGGA  GGACCCGTGC  TTGTAAGTGC  TCCCATAAGC  CCAGAAGAGC
           110         120         130         140         150
AAGATAAACT  TGAAAATAAG  CTCAAGCAGA  CAAATCTCCA  GTGGATAAAG
           160         170         180         190         200
GTTAGACATT  AACCATCTCT  TCCGTCACAT  GTGTTAAATG  TTGCAAGTAT
           210         220         230         240         250
TTGTATGTAT  TTTGTTTCCT  GGGTGCTTCA  TTGGTCGGGG  AGGAGGCTGG
           260         270         280
TATGTGGATT  GTTGTTTTGT  TTTGTTTTTT-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of

the dystrophin gene and amplifying dystrophin sequences.

15. A DNA sequence of the formula:

```
5'       10           20           30           40           50
AAGCTTTGAT   ACTGTGCTTT   AAGTGTTAC    CCTTTGGAAA   GAAAATAATT
         60           70           80           90          100
TTGACAGTGA   TGTAGAAATA   ATTATTTGAT   ATTTATTTCA   AAACAAAATT
        110          120          130          140          150
TATATCCAAT   ACTAAACACA   GAATTTTGTA   AAACAATAAG   TGTATAAAGT
        160          170          180          190          200
AAAATGAACA   TTAGGATTAT   TGAGATTATT   GTAGCTAAAA   CTAGTGTTTA
        210          220          230          240          250
TTCATATAAA   TTATGTTAAT   AAATTGTATT   GTCATTATTG   CATTTTACTT
        260          270          280          290          300
TTTTGAAAAG   TAGTAATGC    CTGTGTTCT    ATATGAGTAT   TATATAATTC
        310          320          330          340          350
AAGAAGATAT   TGGATGAATT   TTTTTTTTAA   GTTTAATGTG   TTTCACATCT
        360          370          380          390          400
CTGTTTCTTT   TCTCTGCACC   AAAAGTCACA   TTTTTGTGCC   CTTATGTACC
        410          420          430          440          450
AGGCAGAAAT   TGATCTGCAA   TACATGTGGA   GTCTCCAGG    GTATATTTAA
        460          470          480          490          500
ATTTAGTAAT   TTTATTGCTA   ACTGTGAAGT   TAATCTGCAC   TATATGGGTT
        510          520          530          540          550
CTTTTCCCCA   GGAAACTGAA   ATAGCAGTTC   AAGCTAAACA   ACCGGATGTG
        560          570          580          590          600
GAAGAGATTT   TGTCTAAAGG   GCAGCATTTG   TACAAGGAAA   AACCAGCCAC
        610          620          630          640          650
TCAGCCAGTG   AAGGTAATGA   AGCAACCTCT   AGCAATATCC   ATTACCTCAT
        660          670          680          690          700
AATGGGTTAT   GCTTCGCCTG   TTGTACATTT   GCCATTGACG   TGGACTATTT
        710          720          730          740          750
ATAATCAGTG   AAATAACTTG   TAAGGAAATA   CTGGCCATAC   TGTAATAGCA
        760          770          780          790          800
GAGGCAAAGC   TGTCTTTTTG   ATCAGCATAT   CCTATTTATA   TATTGTGATC
        810          820          830          840
TTAAGGCTAT   TAACGAGTCA   TTGCTTTAAA   GGACTCATTT   CTGTC-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.

16. A DNA sequence of the formula:

```
5'      103          113          123          133          143
CCCATCTTGT   TTTGCCTTTG   TTTTTTCTTG   AATAAAAAAA   AAATAAGTAA
        153          163          173          183          193
AATTTATTTC   CCTGGCAAGG   TCTGAAAACT   TTTGTTTTCT   TTACCACTTC
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```
         203          213          223          233          243
   CACAATGTAT   ATGATTGTTA   CTGAGAAGGC   TTATTTAACT   TAAGTTACTT
         253          263          273          283          293
   GTCCAGGCAT   GAGAATGAGC   AAAATCGTTT   TTTAAAAAAT   TGTTAAATGT
         303          313          323          333          343
   ATATTAATGA   AAAGGTTGAA   TCTTTTCATT   TTCTACCATG   TATTGCTAAA
         353          363          373          383          393
   CAAAGTATCC   ACATTGTTAG   AAAAAGATAT   ATAATGTCAT   GAATAAGAGT
         403          413          423          433          443
   TTGGCTCAAA   TTGTTACTCT   TCAATTAAAT   TTGACTTATT   GTTATTGAAA
         453          463          473          483          493
   TTGGCTCTTT   AGCTTGTGTT   TCTAATTTTT   CTTTTTCTTC   TTTTTTCCTT
         503          513          523          533          543
   TTTGCAAAAA   CCCAAAATAT   TTTAGCTCCT   ACTCAGACTG   TTACTCTGGT
         553          563          573          583          593
   GACACAACCT   GTGGTTACTA   AGGAAACTGC   CATCTCCAAA   CTAGAAATGC
         603          613          623          633          643
   CATCTTCCTT   GATGTTGGAG   GTACCTGCTC   TGGCAGATTT   CAACCGGGCT
         653          663          673          683          693
   TGGACAGAAC   TTACCGACTG   GCTTTCTCTG   CTTGATCAAG   TTATAAAATC
         703          713          723          733          743
   ACAGAGGGTG   ATGGTGGGTG   ACCTTGAGGA   TATCAACGAG   ATGATCATCA
         753          763          773          783          793
   AGCAGAAGGT   ATGAGAAAAA   ATGATAAAAG   TTGGCAGAAG   TTTTTCTTTA
         803          813          823          833          843
   AAATGAAGAT   TTTCCACCAA   TCACTTTACT   CTCCTAGACC   ATTTCCCACC
         853          863          873          883          893
   AGTTCTTAGG   CAACTGTTTC   TCTCTCAGCA   AACACATTAC   TCTCACTATT
         903          913          923          933          943
   CAGCCTAAGT   ATAATCAGGT   ATAAATTAAT   GCAAATAACA   AAAGTAGCCA
         953          963          973          983          993
   TACATTAAAA   AGGAAAATAT   ACAAAAAAAA   AAAAAAAAAA   AAGCCAGAAA
        1003         1013
   CCTACAGAAT   AGTGCTCTAG   TAATTAC 3'
```

and fragments and derivatives thereof, said fragments and derivatives complementary to the sense and anti-sense strands of the gene coding for dystrophin, said fragments and derivatives capable of annealing to said strands of the dystrophin gene and amplifying dystrophin sequences.

17. A DNA sequence of the formula:

```
5'         10           20           30           40           50
   ATCTCTATCA   TTAGAGATCT   GAATATGAAA   TACTTGTCAA   AGTGAATGAA
           60           70           80           90          100
   AATTTNNTAA   ATTATGTATG   GTTAACATCT   TTAAATTGCT   TATTTTTAAA
          110          120          130          140          150
   TTGCCATGTT   TGTGTCCCAG   TTTGCATTAA   CAAATAGTTT   GAGAACTATG
          160          170          180          190          200
   TTGGAAAAAA   AAATAACAAT   TTTATTCTTC   TTTCTCCAGG   CTAGAAGAAC
```

```
           210           220           230           240           250
        AAAAGAATAT    CTTGTCAGAA    TTTCAAAGAG    ATTTAAATGA    ATTTGTTTTA
           260           270           280           290           300
        TGGTTGGAGG    AAGCAGATAA    CATTGCTAGT    ATCCCACTTG    AACCTGGAAA
           310           320           330           340           350
        AGAGCAGCAA    CTAAAAGAAA    AGCTTGAGCA    AGTCAAGGTA    ATTTTATTTT
           360           370           380           390           400
        CTCAAATCCC    CCAGGGCCTG    CTTGCATAAA    GAAGTATATG    AATCTATTTT
           410           420           430           440           450
        TTAATTCAAT    CATTGGTTTT    CTGCCCATTA    GGTTATTCAT    AGTTCCTTGC
           460           470           480           490           500
        TAAAGTGTTT    TTCTCACAAC    TTTATTTCTT    CTTAACCCTG    CAGTTCTGAA
           510           520           530           540           550
        CCAGTGCACA    TAAGAACATA    TGTATATATG    TGTGTGTGTG    TATTTATATA
           560           570           580           590           600
        TACACACACA    CATATTGCAT    CTATACATCT    ACACATATAG    ATGTATAGAT
           610           620           630           640           650
        TCAATATGTC    TAAAAATGTA    TATAATTCAC    AGTTTTTATC    TTTGATTTGA
           660           670           680
        ATATTTAAGG    GACTGAGACT    CACACTCATA    TACTTTT-3'
```

and fragments and derivatives thereof, said fragments and
derivatives complementary to the sense and anti-sense
strands of the gene coding for dystrophin, said fragments
and derivatives capable of annealing to said strands of
the dystrophin gene and amplifying dystrophin sequences.